

Notice of Allowability

Application No.

09/739,785

Examiner

Albert W Paladini

Applicant(s)

BURTON, JOHN MARK

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed on 12/20/2000.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 20 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/20/00
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: None of the references cited or the art searched disclose or teach alone or in combination the method and apparatus for simulating operation of a data processing system utilizing the first data storage area for the respective signals passed to each pipelined circuit element at commencement of a simulated clock signal, generating the output signals from the first simulation to a second output storage area, and changing the outputs to inputs for the first storage area at the appropriate clock signal cycle, so that the simulation continues by this interactive exchange.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Relevant Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Deering (4763288) discloses a system for simulating digital circuits where signals representing discrete data elements flow through a sequence, or pipeline, of processing components in turn, being transformed at each stage. At any time, many different components

are actively processing different data elements. Parallel paths in the circuit may also be active at the same time processing the same or different data elements. If a system simulates a pipelined system in the conventional manner, it simulates all of the processing of data elements, which occurs at each component at a specific time. Then, it advances its time variable to the next simulated time and simulates the processing of the data elements, which have been transformed at the previous times. The computational overhead of routing the data elements from each output of each component to the inputs of its successor components is incurred for each active component at each advance of simulated time. The simulator must determine the correct inputs to the correct successor components by searching the data structures, which describe the circuit components and their connections.

Onizuka (4918594) discloses a computer implementing method for logically simulating a data processing system using a logic function model comprising an internal register and a plurality of logic units, said logic function model describing functional operations of the data processing system in terms of machine language instructions, a logic circuit model comprising a register related pseudo procedure and a subset of said plurality of logic units, wherein said subset of logic units comprises a plurality of basic logic element, and a communication routine for performing data transfers between said logic circuit model and said logic function model and for controlling the execution of an instruction to be tested.

Papadopoulos (5412799) discloses data processing instrumentation for programming development and debugging which includes a method of simulation where the steps of the program are executed and the number of instructions for each step are counted, Each processing element maintains at least one local token queue in which in processes a plurality of tokens, and each processing element clocks in a new token queue every clock cycle of a system clock.

Barrett (6473772) discloses a method and apparatus for a driving event simulation, which includes a computer program product adaptable for storage on storage media. The system has capability of storing a predetermined set of data structures and for dynamically modifying the data structures based upon a continuously triggering changes and modifying the data structures based upon the event driven triggering.

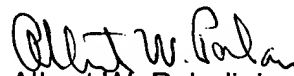
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3. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (703) 308-2005. The examiner can normally be reached from 7:30 to 3:30 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (703) 308-0538. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

October 14, 2004


Albert W. Paladini
Primary Examiner
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